Risk

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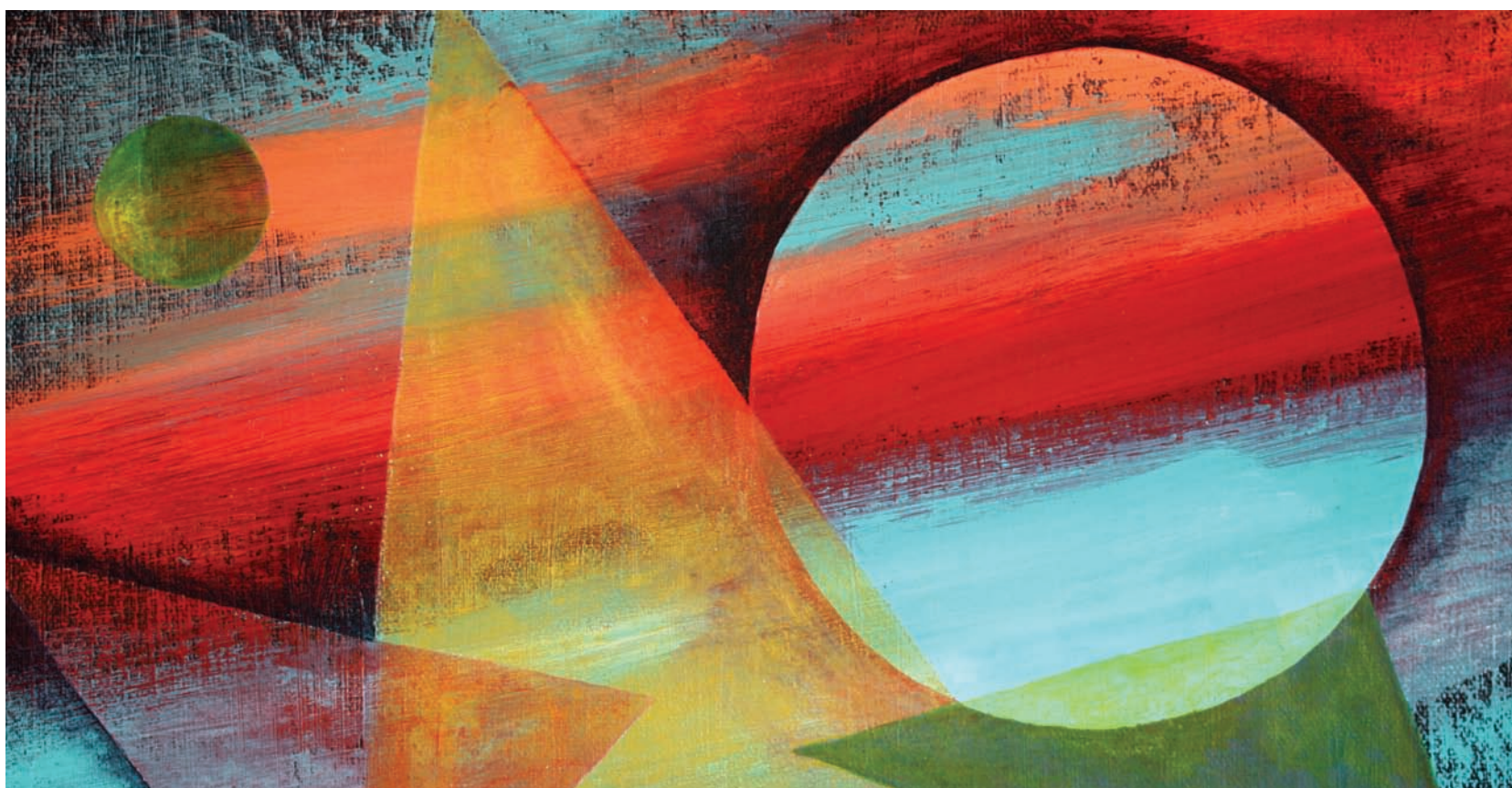
Numerix tops cross-asset and structured products pricing and credit value adjustment risk categories

Risk TECHNOLOGY RANKINGS **2011**

numerix ®
Taking Analytics Further

New regulations have forced financial services firms to get to grips with counterparty credit risk and credit value adjustment, the liquidity coverage and net stable funding ratios, and electronic trading, clearing and reporting. In the face of these changes, all but the biggest banks are turning to technology vendors for help – and end-users have voted Murex top provider overall this year. By **Clive Davidson**

The regulatory push

"The biggest challenge in the midst of a tempest is to get out of the tempest unscathed, and a little bit ahead," says Maroun Edde, chief executive of Murex, overall winner of this year's *Risk* technology vendor rankings.

There is no doubt banks today are in the midst of a storm. The ongoing crisis in the eurozone, with its threat of significant sovereign debt losses and counterparty credit risks, the substantial revision of financial market regulations and intense pressure on costs and margins all present unprecedented challenges for banks. A major ally in the face of all this turbulence is technology – and Murex and other suppliers of trading and risk systems have been at full stretch to meet the rapidly evolving requirements, as this year's software survey shows (see *Risk* December 2011, pages 36–43).

The importance of technology is demonstrated by the fact that spending on risk systems is expected to rise over the next few years, despite cutbacks elsewhere at financial institutions and widespread job losses. According to London-based consultancy Chartis Research, the risk management technology spend will rise by 10% worldwide, from $21 billion in 2012 to just over $23 billion in 2013. This tallies with *Risk*'s own research, which shows that more than 60% of respondents plan to increase IT spending in 2012. Of that number, 56.4% intend to hike spending by more than 10%, while just over 8% of respondents will see more than a 50% increase in expenditure next year (see *Risk*, December 2011, pages 52–53).

Part of this spending will be on in-house systems. Other than the very largest banks, though, most institutions now look to third-party suppliers for most of their analytics, trading and risk management technology. The number of vendors has contracted significantly in recent years – several

mega-merger and acquisition deals took place in 2011, including Algorithmics and IBM – but the technology space remains fiercely competitive.

In this environment, *Risk* readers voted Paris-based Murex the number one vendor, with 10.7% of the overall vote – 1.4 percentage points over its nearest rival. The firm topped the pricing and analytics section, came second in trading systems and took third place in enterprise risk management. It also won the 'other categories' section, coming first in limit checking and systems support and second in collateral management and system-implementation efficiency. This success is down to having a clear strategy appropriate to the environment, Edde claims.

"In volatile times, particularly when markets are shifting, a software vendor needs to identify more clearly than ever a few priorities and stick to them through the tempest," he says. These include having a technology platform that allows for fast development, scalability, continued investment in research and development and staying close to customers, he explains.

As an example, Edde cites the Dodd-Frank Act and European Market Infrastructure Regulation (Emir), and Murex's response in developing technology to support central counterparty clearing for clearing houses, clearing member banks and non-clearing client firms. London-based clearing house LCH. Clearnet recently implemented Murex technology for its SwapClear interest rate swap service, and several banks are also looking to use the firm's systems to help support their clearing efforts, Edde says.

Others also point to evolving regulation as a key driver for their business, including second-placed Thomson Reuters. The firm announced in September it had agreed to sell its trade and risk management technology business to US private equity firm

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>
> Steven O'Hanlon, Numerix

Vista Equity Partners, having put it up for sale in June. It is hard to say to what extent the uncertainty around the company's future influenced its support in this year's rankings, but it may have contributed to the company losing its crown and slipping to second position overall.

Nonetheless, Thomson Reuters won the trading system section this year, with 12.8% of the vote. This is a hotly contested area, and the result indicates that users of Kondor+ are keeping faith with the cross-asset trading platform through the current market turbulence. Thomson Reuters won the forex trading system category and appeared in the top three in all the other trading system categories bar cross-asset, where it came fourth. The company also won the inflation derivatives pricing category and was in the top five in almost every other category across the board, thanks to its Kondor Global Risk enterprise market and credit risk engine, and TopOffice risk aggregation and profit and loss management system.

"Our technology is constantly evolving in line with client requirements, and enables our customers to cope with evolving market challenges," says Boris Lipiainen, global head of product and development at Thomson Reuters. Among the most pressing challenges is Basel III – and one of the implications is that clients are increasingly moving to a single platform for trades and credit-related information such as collateral, netting agreements, ratings and default statistics, Lipiainen says. A key consideration is transparency and the ability to explain and decompose risk parameters, as well as spot and analyse concentrations and correlations, he adds.

"Additionally, stress testing and scenario analysis are a key focus for our clients, as well as being able to make adequate provisions and contingency plans for the increased risks and uncertainty we have seen in recent times," says Lipiainen.

Meanwhile, London-based Misys reaped the benefits of its acquisition of Sophis last year. The company topped the equities pricing and analytics and trading system categories, as well as the equities, inflation and rates trading system categories, and was in the top five across many others.

Like its rivals, Misys identifies Basel III and the clearing and reporting requirements under Dodd-Frank and Emir as key concerns for its clients. "The main query we get from clients in this area is how we interface with trade repositories," says Karim Blanc, a director at Misys Risk Management Solutions. In this regard, Misys links up with middleware provided by MarkitServ to provide workflow connectivity to swap data repositories, as well as dealers, clearing houses and swap execution facilities, Blanc says. The company says it has also enhanced the straight-through processing of its Summit FT trading and risk system to capture, consolidate and automate data related to clearers, clearing registration, fees, commissions and valuations. It is also able to manage

How the poll was conducted

Risk polled thousands of banks, hedge funds, pension funds, insurance companies and corporate treasurers for this year's technology rankings, and received 821 valid responses.

Respondents were asked to vote for the technology vendors that provide the best product offering across a number of categories, including enterprise risk management, risk capital calculation, front- to back-office trading systems, and pricing and analytics.

Participants were asked to base their votes on functionality, usability, performance, return on investment and reliability. Nominated technology companies were awarded three points for a first-choice vote, two for a second-choice vote and one point for a third-choice vote.

Only technology end-users were allowed to vote. Risk conducted a compre-hensive due diligence process and disqualified any votes that were felt to be unfair. These include people voting for their own firm, or relatives of someone who works in that company voting for the firm, multiple votes from the same person, multiple votes from the same IP address, proxy votes on behalf of customers, votes by people who choose the same firm indiscriminately throughout the poll, votes by people who are clearly not involved in the business areas covered by the poll, and block votes from groups of people on the same desk at the same institution voting for the same firm. The editor's decision is final in determining the validity of votes.

This year, Risk has changed the way it calculates its top 20 winners, basing it on overall percentage votes, rather than the number of first, second and third places as in previous years.

margin calls for listed and cleared over-the-counter derivatives, he adds.

With Misys in the ascendancy, Toronto-based risk management specialist Algorithmics took fourth position. The company – acquired by IBM in October – won the enterprise-wide risk management section, topping the market risk, risk aggregation and risk dashboard categories, as well as economic capital calculation and collateral management.

"The biggest challenge facing our clients is the lack of final detail in the variety of emerging regulations across all risk domains, from collateral to capital to liquidity risk management," says John Macdonald, executive vice-president at Algorithmics. "In many cases, clients have begun work on substantial projects that address the broad principles of new regulation, but they are often working in the dark while the regulators finalise the details. Clients know that once there is regulatory clarity, they face the challenge of fine-tuning their systems."

Algorithmics makes regular responses to regulatory requests for comment – a recent example followed the release of proposed guidance on stress testing for banking organisations with more than $10 billion in total consolidated assets, jointly published by three US banking regulators in June. The company noted that the greatest challenge for banks will be in going beyond their current risk silos to perform enterprise-wide stress testing. To help banks in integrating their approach to risk and stress testing, Algorithmics has launched Algo Strategic Business Planning, a product that provides senior executives with interactive oversight of their bank's risk and finance operations, says Macdonald.

SunGard came fifth in the overall rankings this year. The company came second in the enterprise-wide risk management section and fifth in the trading system categories, topping the credit risk management category, as well as taking second place in liquidity risk management, risk aggregation, economic capital calculation and asset and liability management.

"Our customers are looking for support across all the areas affected by the raft of regulations, from the front to the back office. They also want to understand the big picture and how this will play out over the long term," says Harold Finders, chief executive of SunGard Financial Systems.

Being able to meet those needs is crucial to the success of a software supplier in today's environment, he adds. "Even if institutions agree on the broad principles, each one is different in the detail of how it approaches risk management. Rather than trying to make customers fit a pre-defined approach to risk, we take our knowledge of market best practice and adapt it to fit each customer's unique situation," he says.

For example, market best practice in credit risk management may dictate that a bank should fully re-price all trades under a simulation model for potential future exposure. However, many banks have difficulty in aggregating all the necessary data to obtain complete coverage. "So our solutions can take whatever data they have and make sensible compromises where information is missing," says Finders.

New York-based Numerix came sixth overall in the rankings, thanks mainly to its strong performance in pricing and analytics, where it topped the structured products and cross-asset categories and was in the top five in all the other categories. It also topped the credit value adjustment (CVA) category in the risk management section.

According to Steven O'Hanlon, president and chief operating officer of Numerix, accurate valuation of financial instruments is an essential component of robust CVA calculations. "The inability to price specific regional securities and take into account local data and conventions leads to the use of approximations that can inherently skew risk numbers," he explains. The popularity of the Numerix CVA product is largely down to its ability to accurately value a wide range of instruments, alongside the recent enhancements to its hybrid modelling framework that allow for the production of consistent scenarios among multiple risk factors, he claims.

Seventh overall is California-based Calypso Technology, which came first in the credit and structured products trading system categories, as well as the systems-implementation efficiency category. The company has carved a strong position for itself in the new world of OTC derivatives clearing, having provided core technology for a number of new clearing houses, including CME Group, Eurex, Singapore Exchange and Tokyo Stock Exchange.

Following Calypso in eighth position is New York-based Bloomberg. The company topped the data vendor category, came second in the commodities pricing and analytics section, and was in the top five in the forex, structured products and cross-asset trading system sections.

Ninth is California-based Moody's Analytics, which came first in the Basel III, regulatory capital calculation and regulatory compliance and reporting categories. To meet the demand from clients looking for guidance and clarification on regulations, the company has been hiring heavily on the advisory side of its business, says Robert Dutcher, head of global marketing at Moody's Analytics.

Among the other notable results in the rankings are SAS, in tenth spot overall and Wolters Kluwer, which won the operational risk section and came in fifteenth overall. New York-based Savvysoft, meanwhile, topped the rates pricing and analytics category, and was in the top five in all the other pricing and analytics categories bar foreign exchange, giving it eleventh place overall – not bad for a specialist company that remains a fraction of the size of most of its rivals.

With the tempest in the markets unlikely to abate soon, it remains to be seen which institutions get out unscathed and which actually manage to get ahead. Technology will certainly be a factor in any institution's survival, and its ability to thrive in the current environment. Those suppliers that have their fingers most accurately on the pulse of banks' requirements and are able to adapt their technology to those ends will no doubt benefit in next year's rankings. ●

OVERALL

2011	2010	Vendor	%
1	na	Murex	10.7
2		Thomson Reuters	9.3
3		Misys	8.4
4		Algorithmics	7.5
5		SunGard	7.1
6		**Numerix**	**6.8**
7		Calypso	6.3
8		Bloomberg	5.7
9		Moody's Analytics	5.3
10		SAS	4.9
11		Savvysoft	3.9
12		Fincad	3.5
13		Open Link	3.3
14		SAP Sybase	2.9
15		Wolters Kluwer Financial Services	2.8
16		SuperDerivatives	2.4
17		QRM	2.1
18		MSCI Barra	1.7
19		Kamakura	1.5
20		Chase Cooper	1.1

Pricing and analytics

2011	2010	Vendor	%
1	2	Murex	14.2
2	**4**	**Numerix**	**12.6**
3	5	Savvysoft	12.1
4	1	Thomson Reuters	10.1
5		Fincad	9.7
6	7	Calypso	7.3
7	9	Misys	6.3
8	3	Bloomberg	5.6
9	8	SuperDerivatives	5.5
10	10	SunGard	4.9

Enterprise-wide risk management – market, credit, counterparty, liquidity, aggregation, Basel III

2011	2010	Vendor	%
1	1	Algorithmics	13.1
2	2	SunGard	12.5
3	4	Murex	11.8
4	3	Thomson Reuters	11.7
5	5	Misys	9.5
6	6	Moody's Analytics	7.7
7	7	SAS	6.3
8		**Numerix**	**5.7**
9	9	Calypso	5.6
10	8	Bloomberg	5.3

Pricing and analytics

Commodities

2011	2010	Vendor	%
1	2	Murex	16.2
2	1	Bloomberg	14.9
3	4	Savvysoft	13.1
4		**Numerix**	**11.6**
5		Fincad	9.7

Equities

2011	2010	Vendor	%
1	2	Misys	17.1
2	3	Murex	14.3
3		Savvysoft	12.5
4	**5**	**Numerix**	**11.6**
5	4	Thomson Reuters	10.5

Credit

2011	2010	Vendor	%
1	1	Murex	15.1
2		Savvysoft	13.6
3	**5**	**Numerix**	**11.5**
4	4	Calypso	10.2
5		Fincad	9.1

Forex

2011	2010	Vendor	%
1	4	SuperDerivatives	14.4
2	1	Thomson Reuters	13.5
3	2	Murex	12.4
4	**5**	**Numerix**	**10.5**
5	3	Bloomberg	10.1

Pricing and analytics continued

Inflation

2011	2010	Vendor	%
1	1	Thomson Reuters	16.1
2	5	Savvysoft	15.2
3	2	Murex	13.6
4	**4**	**Numerix**	**11.4**
5		Fincad	10.5

Rates

2011	2010	Vendor	%
1	3	Savvysoft	16.8
2	1	Thomson Reuters	15.7
3	4	Murex	15.4
4	**5**	**Numerix**	**12.7**
5		Fincad	11.4

Structured products

2011	2010	Vendor	%
1	**1**	**Numerix**	**18.3**
2	5	Savvysoft	15.9
3	3	Murex	13.2
4		Fincad	12.3
5		Calypso	12.2

Cross-asset

2011	2010	Vendor	%
1	**3**	**Numerix**	**17.1**
2	1	Murex	16.5
3	4	Savvysoft	15.1
4	5	Calypso	11.6
5		Fincad	9.9

Enterprise risk management

Enterprise-wide market risk management

2011	2010	Vendor	%
1	1	Algorithmics	14.7
2	3	Murex	13.6
3	4	SunGard	12.7
4	2	Thomson Reuters	12.5
5		Misys	10.1

Enterprise-wide credit risk management

2011	2010	Vendor	%
1	1	SunGard	14.9
2	2	Algorithmics	13.8
3	4	Murex	13.4
4	3	Thomson Reuters	12.1
5	5	Moody's Analytics	11.2

Credit value adjustment calculation

2011	2010	Vendor	%
1		**Numerix**	**14.1**
2	2	Algorithmics	13.3
3	1	SunGard	10.3
4	4	Murex	10.1
5	5	Misys	10.0

Liquidity risk management

2011	2010	Vendor	%
1	1	Murex	14.2
2	4	SunGard	13.8
3	2	Thomson Reuters	12.0
4	3	Algorithmics	11.8
5	5	Misys	10.2

Risk aggregation: market, credit, counterparty, liquidity, operational

2011	2010	Vendor	%
1	4	Algorithmics	14.4
2	3	SunGard	12.7
3	1	Thomson Reuters	11.9
4	2	Murex	11.7
5		Misys	9.9

Basel III compliance

2011	2010	Vendor	%
1	1	Moody's Analytics	15.7
2	3	Algorithmics	14.2
3	2	SunGard	13.8
4		Thomson Reuters	12.1
5	5	SAS	11.7

Risk dashboards

2011	2010	Vendor	%
1	1	Algorithmics	15.1
2	2	Thomson Reuters	14.2
3	3	Murex	12.7
4=		Misys	11.6
4=	4	SunGard	11.6